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New records of corticioid fungi from Sicily

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Abstract: This paper is the result of an on-going study on distribution and ecology of corticioid wood-inhabiting fungi in Sicily. Twenty-five species not previously recorded in Sicily are here listed. For each taxon, ecological and distributional data are provided. *Subulicystidium perlongisporum* was recorded in Italy for the first time in two localities occurring on *Quercus ilex* L. wood. Description, distributional and ecological data of this rare taxon are also provided. *Dendrophora versiformis* and *Kavinia alboviridis,* considered rare species in Italy and Europe, are included in this report.

Key words: *Aphyllophorales*; cystidia; Mediterranean area; *Subulicystidium perlongisporum*; wood-inhabiting fungi

The objective of this contribution is to improve the knowledge on distribution and ecology of corticioid fungi in Sicily. Very few studies have been carried out concerning corticioid fungi from Mediterranean ecosystems. Corticioid fungi are basidiomycetes with effused basidiomata, a smooth, merulioid or hydnoid hymenophore, and holobasidia (Larsson 2007), included in the group of aphyllophoroid fungi. Knowledge on diversity of aphyllophoroid wood-inhabiting fungi in Italy has increased remarkably over the last years: altogether, 770 taxa have been recorded in Italy (Saitta et al. 2011). Data on diversity and distribution of aphyllophoroid species in Sicily were published in several papers (Saitta et al. 2004; Bernicchia et al. 2007; Bernicchia et al. 2008; Saitta and Venturella 2010; Saitta et al. 2011). New distributional and ecological information on new, uncommon and/or rare corticioid species has been recently published (Saitta and Melo 2012; Gorjón and Saitta 2014; Pecoraro et al. 2014; Saitta et al. 2014a, 2014b). The number of recorded corticioid species in Sicily is 102 (see Appendix) excluding the new records herein. Sicily is the largest Mediterranean island and is predominantly hilly and mountainous. Sicily lies between 35° N and 38° N and 012° E and 015° E; its climate is Mediterranean with mild and rainy winters, and warm and dry summers.

The species reported in this study were collected from January 2012 to March 2015. Records were derived from a larger mycological study on wood-inhabiting corticioid fungi in Sicily. Regular and planned survey trips were conducted in several localities (Figure 1 and 2) and on various substrata. Basidiomata of corticioid fungi were collected in Mediterranean maquis, the broadleaved and coniferous forests of Sicily. Broadleaved forests are dominated by oak species, especially *Quercus ilex* L. and *Q. suber* L. Coniferous forests are dominated by *Pinus* species. Fungi were collected on fallen trunks and branches, removed from substrata with a sharp knife and placed in a paper bag. Samples were taken to the laboratory for microscopic examination. The nomenclature of fungal species follows CBS (http://www.cbs.knaw.nl/databases/aphyllo/database.aspx) and Mycobank (http://www.mycobank.org), except in a few cases, and for plants the International Plant Names Index (http://www.ipni.org). Each species is accompanied by ecological and distributional data, date of collection and collection numbers. Excluding the specimen deposited at the herbarium of University of Tartu, Tartu, Estonia (TU) all vouchers specimens are deposited at the herbarium of the Museo di Storia Naturale di Venezia, Venice, Italy (MCVE).

Macroscopic examinations were carried out on fresh basidiomata while the microscopic features were observed under a Zeiss Axioskop. Dried specimens were rehydrated using a 0.3% KOH solution and stained with 0.1% cotton blue in lactic acid, Melzer's and Congo Red reagents. Spore measurements are based on 30 observations of fresh and dried samples. All specimens were collected and identified by AS and confirmed by CL. Species identifications were based on Eriksson and Ryvarden (1973, 1975, 1976), Eriksson et al. (1984), Hjortstam et al. (1988), and Bernicchia and Gorjón (2010).

Figure 1. Location of the investigated area (Sicily) with localities of collections (1-20). **1**: Monte Pellegrino. **2**: Bosco Niscemi. **3**: Parco della Favorita. **4**: Monte Petroso. **5**: Mandria Zarcati. **6**: Casa Munciarrati. **7**: Piano Torre. **8**: Monte dei Cervi. **9**: Villa Salvia. **10**: Monte Passo dei Lupi. **11**: Birribbaida. **12**: Contrada Buscemi. **13**: Bivio Lupo. **14**: Santa Barbara. **15**: Galleria Roccazzo. **16**: Monte Pispisa. **17**: Monte Gibliscemi. **18**: Sughereta di Niscemi. **19**: Punte di Cuti. **20**: Costa Lunga.

Figure 2. Location of the investigated area (Pantelleria, Sicily) with localities of collections. Image adapted from Google Earth™ (https://earth.google.com/).

Twenty-five corticioid species new to Sicily are listed here in alphabetical order. Included are ecological and distributional data for each taxon. Including these 25 new records, 127 corticiod fungi are known from Sicily.

Subulicystidium perlongisporum Boidin & Gilles (Figure 3) is a first report for Italy. This rare corticioid species was previously recorded in Europe only in Spain and Denmark (see remarks).

Many listed species are considered rare in Italy (see remarks).

Dendrophora versiformis (Berk. & M.A. Curtis) Chamuris and *Kavinia alboviridis* (Morgan) Gilb. & Burdginton (Figure 4) are considered rare species in Italy and Europe (Bernicchia and Gorjón 2010).

Amylocorticium cebennense (Bourdot) Pouzar (DD), *Coronicium gemmiferum* (Bourdot & Galzin) J. Erikss. & Ryvarden (DD), *Hyphoderma medioburiense* (Burt.) Donk (VU), *Laxitextum bicolor* (Pers.) Lentz (LC), *Leptosporomyces fuscostratus* (Burt) Hjortstam (NA), *Sistotrema brinkmannii* (Bres.) J. Erikss. (LC), *Sistotrema muscicola* (Pers.) S. Lundell (LC), *Sistotrema oblongisporum* M. P. Christ. & Hauerslev (LC), *Trechispora microspora* (P. Karst.) Liberta (LC), *Trechispora stellulata* (Bourdot & Galzin) Liberta (LC), *Tubulicium vermiferum* (Bourdot) Oberw. ex Jülich (DD), *Tubulicrinis chalotrix* (Pat.) Donk (DD), *Tubulicrinis medius* (Bourdot & Galzin) Oberw. (LC), *Tubulicrinis subulatus* (Bourdot & Galzin) Donk (LC) and *Xylodon rimosissimus* (Peck)

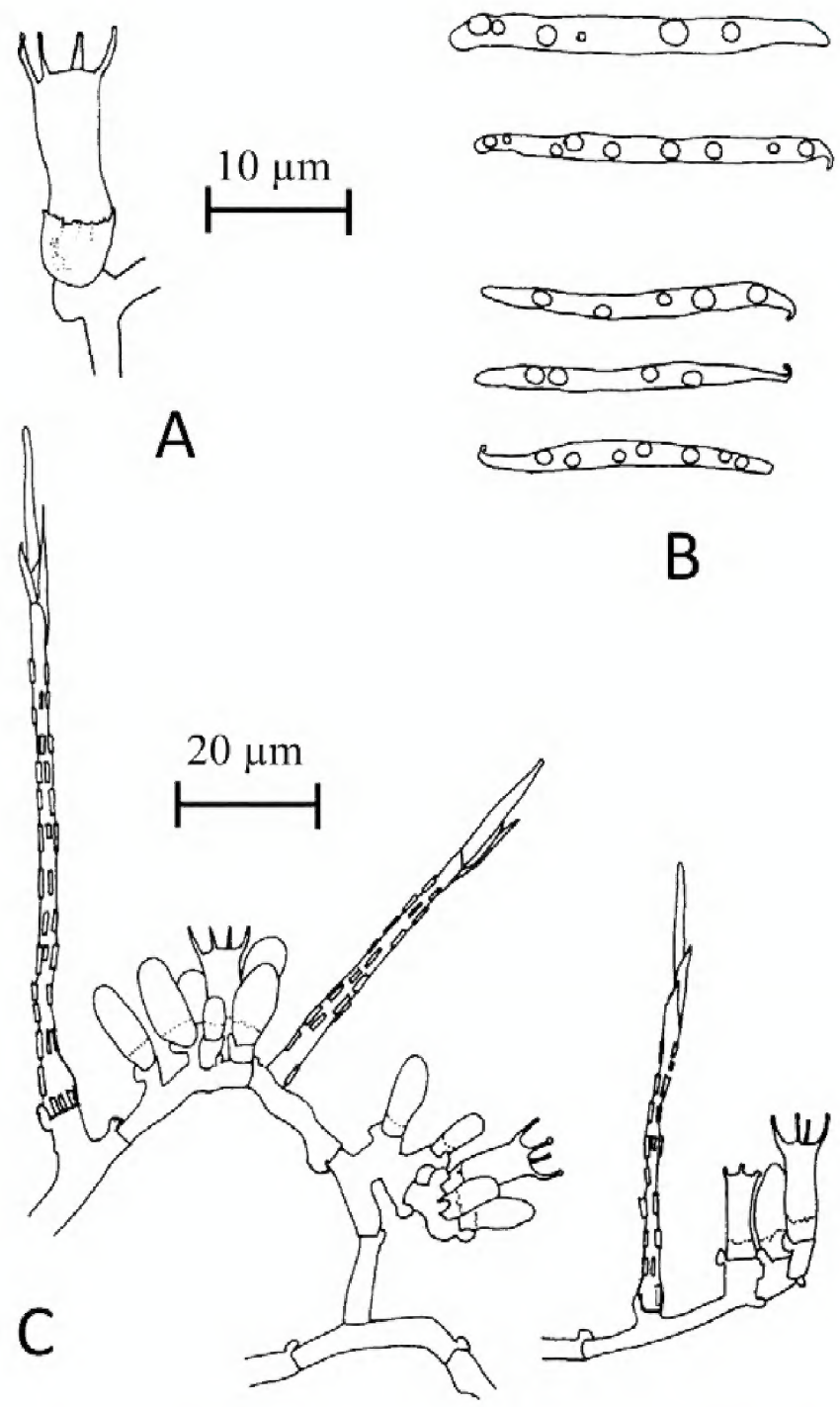

Figure 3. *Subulicystidium perlongisporum.* **A:** Basidium. **B:** Basidiospores. **C:** Cystidia, basidioles and basidia.

Hjortstam & Ryvarden (DD), are included in the Danish Red List (http://www2.dmu.dk/1_Om_DMU/2_Tvaerfunk/3_fdc_bio/projekter/redlist/artsgrupper_en.asp) and *Hyphoderma medioburiense* (NT) *Hyphodontia juniperi* (Bourdot & Galzin) J. Erikss. & Hjortstam (NT), and *Kavinia alboviridis* (NT) in the Norwegian Red List (http://www.artsdatabanken.no/File/685/Norsk%20rødliste%20for%20arter). There is presently no official Red List in Italy.

Acanthophysellum dextrinoideocerussatum (Manjón, M.N. Blanco & G. Moreno) Sheng H. Wu, Boidin & C.Y. Chien (Wu et al. 2000: 160)

Materials examined: Italy. Sicily. Pantelleria, Fossa Carbonara, 8 December 2011, 36°47′56.562″ N, 012°00′13.245″ E, on fallen branch of *Erica arborea* L., MCVE 28586; Italy. Sicily. Pantelleria, Punta Spadillo, 19 November 2013, 36°49′18.755″ N, 012°00′44.067″ E, on fallen branch of *Quercus ilex* L., MCVE 28598; Italy. Sicily. Pantelleria, Serra di Guarneri, 19 November 2013, on *Cistus salviifolius* L., MCVE 28596; Italy. Sicily. Pantelleria, Cuddia di Mida, 20 November 2013, 36°47′19.508″ N, 011°59′38.252″ E, on *Rosmarinus officinalis* L., MCVE 28599; Italy. Sicily. Pantelleria, Cuddia Attalora, 20 November 2013, 36°44′39.926″ N, 012°01′26.940″ E on *R. officinalis*, MCVE 28600; Italy. Sicily. Petralia Sottana, Villa Salvia, 30 April 2014, on *R. officinalis*, MCVE 28603.

Remarks: This species is considered rare in Italy by Bernicchia and Gorjón (2010). It was previously collected only from the Lazio and Tuscany regions (Bernicchia and Gorjón 2010). The sole reliable character separating *A. dextrinoideocerussatum* from *A. cerussatum* seems to be the acanthophyses with dextrinoid and branched protuberances (Moreno et al. 1990).

Amylocorticium cebennense (Bourdot) Pouzar (Pouzar 1959: 11)

Material examined: Italy. Sicily. Pantelleria, Monte Gibele, 18 November 2013, 36°46′39.170″ N, 012°00′34.566″ E, on fallen trunk of *Pinus hamiltonii* Ten., MCVE 28595.

Remarks: Within the genus *Amylocorticium*, *A. cebennense* is characterized by lack of cystidia, presence of clamps and allantoid spores. It occurs mostly in the northern part of Italy (Bernicchia and Gorjón 2010) and this record extends the distribution to southern Italy.

Coronicium gemmiferum (Bourdot & Galzin) J. Erikss. & Ryvarden (Eriksson and Ryvarden 1975: 297)

Materials examined: Italy. Sicily. Casa Munciarrati, 30 March 2014, 37°55′11.740″ N, 013°58′08.509″ E, on fallen trunk of *Quercus suber* L., MCVE 28613; Italy. Sicily. Pantelleria, Punta Spadillo, 18 November 2013, 36°49′15.107″ N, 012°00′43.449″ E, on fallen branch of *Q. ilex*, MCVE 28597; Italy. Sicily. Palermo, Bivio Lupo, 20 March 2014, 37°55′15.457″ N, 013°22′38.290″ E, on fallen trunk of *Quercus gussonei* (Borzì) Brullo, MCVE 28612.

Remarks: This is a species with distribution in southern Europe, and may be a thermophilic species (Eriksson and Ryvarden 1975). *Coronicium thymicola* (Bourdot & Galzin) Jülich differs from *C. gemmiferum* having naked cystidia.

Dendrophora versiformis (Berk. & M.A. Curtis) Chamuris (Chamuris 1987: 544)

Material examined: Italy. Sicily. Trapani, Monte Passo del Lupo, 21 April 2014, 38°7′36.088″ N, 012°44′29.173″ E, on fallen trunk of *Q. ilex*, MCVE 28621.

Remarks: This rare species is characterized by its brown dendrohyphidia. The specimen was collected in a rocky area with a few *Q. ilex*. This is the second Italian record (Bernicchia and Gorjón 2010).

Hyphoderma medioburiense (Burt.) Donk (Donk 1957: 15)

Materials examined: Italy. Sicily. Palermo, Parco della

Figure 4. A: *Leptosporomyces mutabilis*. **B:** *Tubulicrinis calothrix*. **C:** *Kavinia alboviridis*.

Favorita, 26 April 2014, 38°09′34.13″ N, 013°20′28.82″ E, on fallen trunk of *Eucalyptus camaldulensis* Dehnh., MCVE 28622; Italy. Sicily. Trapani, Birribbaida, 4 February 2015, 37°37′48.440″ N 012°47′15.719″ E, on fallen branch of *Ceratonia siliqua* L., MCVE 28627.

Remarks: This is a widely distributed species in Europe (Bernicchia and Gorjón 2010), characterized by its smooth hymenophore and cylindrical cystidia excreting a resinous brown matter.

Hyphodonta juniperi (Bourdot & Galzin) J. Erikss. & Hjortstam (Eriksson and Ryvarden 1976: 666)

Materials examined: Italy. Sicily. Palermo, Bivio Lupo, 20 March 2014, 37°55′15.457″ N, 013°22′38.290″ E, on fallen trunk of *Q. gussonei*, MCVE 28611; Italy. Sicily. Palermo, Mandria Zarcati, 2 April 2014, 38°09′15.119″ N, 013°16′02.358″ E, on fallen trunk of *Pinus halepensis* Mill., MCVE 28614.

Remarks: This is a widely distributed species in Europe and in Italy (Bernicchia and Gorjón 2010). This record extends the distribution to southern Italy. *Hyphodontia juniperi* belongs to the *H. crustosa*-complex, characterized by subulate cystidia in the hymenium and recognized by its thick, tuberculate, white-cream-coloured hymenium and broadly ellipsoid basidiospores (Eriksson et al. 1981).

Kavinia alboviridis (Morgan) Gilb. & Budington (Gilbertson and Budington 1970: 95) (Figure 4)

Materials examined: Italy. Sicily. Palermo, Mandria Zarcati, 15 March 2014, 38°9′16.212″ N, 013°16′9.156″ E, on fallen trunk of *Cupressus sempervirens* L., MCVE 28610; Italy. Sicily. Palermo, Mandria Zarcati, 5 March 2014, 38°09′14.755″ N, 013°15′54.169″ E, on fallen trunk of *Pinus pinea* L., MCVE 28609.

Remarks: This taxon is easily recognized macroscopically because of its resupinate hydnoid basidiomata and green subulate aculei, microscopically by its rough spores. *Kavinia alboviridis* is a rare species in Italy and Europe (Eriksson and Ryvarden 1976; Bernicchia and Gorjón 2010).

Lagarobasidium detriticum (Bourdot & Galzin) Jülich (Jülich 1979: 334)

Material examined: Italy. Sicily. Palermo, Costa Lunga, 28 February 2014, 38°01′10.302″ N, 013°14′ 00.605″ E, on fallen branch of *Q. ilex*, MCVE 28606.

Remarks: This is a widely distributed species in Europe. Its long clavate cystidia and ellipsoid thick-walled cyanophilous basidiospores are distinctive characters.

Laxitextum bicolor (Pers.) Lentz (Lentz 1955: 19)

Material examined: Italy. Sicily. Palermo, bosco San Giorgio, 18 November 2013, 37°57′12.919″ N, 013°57′18.144″ E, on fallen trunk of *Q. suber*, MCVE 28594.

Remarks: This is a widely distributed species in Europe (Bernicchia and Gorjón 2010). Macroscopically *L. bicolor* is characterized by the steroid basidiome, the presence of gloecystidia and the finely asperulate amyloid spores.

Leptosporomyces fuscostratus (Burt) Hjortstam (Hjortstam 1987: 58)

Material examined: Italy. Sicily. Palermo, Monte Petroso, 13 November 2010, 25 February 2012, 38°05′53.463″ N, 013°15′51.350″ E, on fallen branch of *Q. ilex*, MCVE 28584.

Remarks: This is an uncommon species in Italy, recorded only from Trentino Alto-Adige and Emilia Romagna regions in Italy (Bernicchia and Gorjón 2010). This record extends the distribution to the southern Italy. The species is characterized by whitish to pale cream athelioid basidiome often with yellow-ochre tints, more or less cracked when dry, and the light brown hyphae in subiculum and rhizomorphs.

Leptosporomyces mutabilis (Bres.) Krieglst. (Krieglsteiner 1991: 53) (Figure 4)

Materials examined: Italy. Sicily. Palermo, Bosco Niscemi, 20 October 2013, 4 November 2013, 38°09′ 42.999″ N, 013°20′18.820″ E, on *Phellinus torulosus* (Pers.) Bourdot & Galzin, MCVE 28592, MCVE 28593; Italy. Sicily. Palermo, Mandria Zarcati, 5 March 2014, 38°09′14.512″ N, 013°16′08.769″ E, on fallen trunk of *P. pinea*, MCVE 28607; Italy. Sicily. Palermo, Bosco Niscemi, 20 May 2013, 38°09′47.736″ N, 013°20′16.193″ E, on fallen branch of *Q. ilex*, MCVE 28503.

Remarks: This species is macroscopically somewhat similar to *L. fuscostratus* but with hyaline basal hyphae and ellipsoid to subcylindrical smaller basidiospores. It is widely distributed in Europe (Bernicchia and Gorjón 2010).

Leptosporomyces septentrionalis (J. Erikss.) Krieglst. (Krieglsteiner 1991: 53)

Material examined: Italy. Sicily. Palermo, Isnello, Piano Torre, 20 November 2010, 37°54′15.975″ N, 013° 59′ 29.388″ E, on stump of *Q. ilex*, MCVE 28585.

Remarks: This is a widespread species in Europe with few records in Italy (Bernicchia and Gorjón 2010). Macroscopically often similar to *L. fuscostratus,* microscopically *L. septentrionalis* differs having hyaline basal hyphae and subcylindrical to subfusiform basidiospores.

Phanerochaete jose-ferreirae (D.A. Reid) D.A. Reid (Reid 1975: 135)

Material examined: Italy. Sicily. Trapani, Pantelleria, Montagna Grande, 16 November 2013, 36°46′46.842″ N, 012°00′09.885″ E, on fallen branch of *Arbutus unedo* L., MCVE 28602.

Remarks: This is a rare species previously recorded just once in Italy. The distinctive characters of this taxon are the smooth hymenial surface, the lack of cystidia and the relatively large basidiospores.

Sistotrema brinkmannii (Bres.) J. Erikss. (Eriksson 1948: 134)

Material examined: Italy. Sicily. Palermo, Monte dei Cervi, 17 October 2013, 37°52′25.448″ N, 013°59′02.892″ E, on fallen branch of *Fagus sylvatica* L., MCVE 28591.

Remarks: This is a common species in all European countries (Bernicchia and Gorjón 2010). Within the genus *Sistotrema* it is characterized by the presence of clamps, absence of cystidia, basidia with 6 to 8 sterigmata and suballantoid spores.

Sistotrema muscicola (Pers.) S. Lundell (Lundell and Nannfeldt 1947: 1415)

Material examined: Italy. Sicily. Caltanissetta, Niscemi, Sughereta di Niscemi, 10 April 2014, 37°06′ 11.875″ N, 014°26′05.246″ E, on fallen branch of *Q. suber*, MCVE 28618.

Remarks: This species is widely distributed in Europe, with few records in Italy (Bernicchia and Gorjón 2010). It can be recognized by its hydnoid to irpicoid hymenophore, with flattened aculei and spores subglobose to broadly ellipsoid.

Sistotrema oblongisporum M. P. Christ. & Hauerslev (Christiansen 1960: 82)

Material examined: Italy. Sicily. Caltanissetta, Monte Gibliscemi, 10 April 2014, 37°12′48.531″ N, 014° 16′ 47.673″ E, on fallen trunk of *E. camaldulensis*, MCVE 28619.

Remarks: This is a widely distributed species in Europe but in Italy recorded only from Emilia Romagna, Lazio and Veneto regions (Bernicchia and Gorjón 2010). This record extends the distribution to southern Italy. *Sistotrema oblongisporum* is characterized by its thin-walled, smooth and suballantoid basidiospores.

Subulicystidium perlongisporum Boidin & Gilles (Boidin and Gilles 1988: 197) (Figure 3)

Description: Basidiomata annual, resupinate, loosely adnate, pruinose, very thin, light grey to pearl grey. Hymenial surface smooth to velutinous under the lens; margin indeterminate. Hyphal system monomitic, hyphae hyaline, thin to thick-walled, sometimes encrusted, clamped, 3–4 µm width. Cystidia numerous, projecting beyond the hymenial surface, subulate, sometimes enlarged at the base, with a basal clamp, usually heavily encrusted with rectangular crystals, with a smooth apex, 65–90(105) × (2.2)2.5–3 µm. Basidioles stocky, with basal clamps, covered at the base by crystal deposits. Basidia suburniform, with basal clamp, tetrasporic, 18–20 × 4.5–5.5 µm. Basidiospores acicular, smooth, thin-walled, narrowly fusiform, 26–29 (30) × 1.8–2.2 µm, inamyloid, acyanophilous.

Materials examined: Italy. Sicily. Palermo, Bosco Niscemi, 7 March 2015, 50 m a. s. l., 38°09′47.440″ N, 013°20′13.335″ E, on fallen branch of *Q. ilex*, MCVE 28569; Italy. Sicily. Palermo, Bosco Manca, 12 March 2015, 820 m a.s.l., 37°57′38.804″ N, 013°22′41.110″ E, on fallen branch of *Q. ilex*, TU 124388.

Remarks: *Subulicystidium perlongisporum* is a rare, but widely distributed taxon with records from Réunion Island, France (Duhem and Michel 2001), Russia (Volobuev 2016), Spain (Telleria et al. 2008) and Denmark (http://www.gbif.org/occurrence/125757896) in Europe, and China (Day 2011), the Caucasus (Ghobad-Nejhad 2011), Madagascar (Duhem and Michel 2001), tropical Africa (Duhem and Michel 2001), Venezuela (Boidin and Gilles 1988), Mexico (Urbizu et al. 2014), and Costa Rica (Kisimiva-Horovitz et al. 1997). These first records of *S. perlongisporum* in Italy widen the knowledge on the distribution and ecology of this rare taxon. *Subulicystidium perlongisporum* can be easily recognized microscopically by its encrusted cystidia and the acicular spores that are longer and narrower than in *S. longisporum*. Macroscopically *S. longisporum*, based on the Sicilian specimens, differs from *S. perlongisporum* by its whitish colour and thinner basidiomata. The *S. perlongisporum* samples found in Italy have longer basidiospores, basidia and encrusted cystidia than those of the typus. Spores are up to 30 µm, basidia up to 20 µm and cystidia up to 105 µm. These new Italian records of *S. perlongisporum* are noteworthy and support Sicily as an important area for fungal diversity.

Trechispora microspora (P. Karst.) Liberta (Liberta 1966: 319)

Material examined: Italy. Sicily. Trapani, Pantelleria, Bagno asciutto, 21 November 2013, 36°46′25.867″ N, 011°59′12.683″ E, on wood of *Cistus* sp., MCVE 28601.

Remarks: This is a widely distributed species in Europe, recorded only from Emilia Romagna, Sardegna and Veneto regions in Italy (Bernicchia and Gorjón 2010). *Trechispora microspora* is characterized by the hymenophore smooth to granulose, the presence of numerous acicular crystals, the basidia shortly cylindrical and basidiospores verrucose with an evident apiculus.

Trechispora stellulata (Bourdot & Galzin) Liberta (Liberta 1966: 319)

Materials examined: Italy. Sicily. Pantelleria, Fossa Carbonara, 36°47′57.304″ N, 012°00′15.099″ E, on fallen branch of *Q. ilex*, 8 December 2011, MCVE 28587; Italy. Sicily. Palermo, Santa Barbara, 29 November 2013, 37°53′16.175″ N, 013°23′54.495″ E, on fallen branch of *Q. gussonei*, MCVE 28603.

Remarks: Previously recorded in Emilia-Romagna, Toscana and Veneto regions in Italy, this species is widely present in Europe (Bernicchia and Gorjón 2010). The ellipsoid, sparsely and irregularly aculeate to tuberculate basidiospores are the best character for its determination (Larsson 1992).

Tubulicium vermiferum (Bourdot) Oberw. ex Jülich (Jülich 1979: 335)

Material examined: ITALY. Sicily. Palermo, Punte di Cuti, 28 February 2013, 38°01′03.121″ N, 013°11′8.971″ E, on fallen branch of *E. arborea*, MCVE 28589.

Remarks: This is a widely distributed species in Europe, with few records in Italy (Bernicchia and Gorjón 2010). The genus *Tubulicium* is characterized by its multi-rooted lyocystidia covered by dendroid hyphae. The sigmoid, vermicular to navicular spores distinguish *T. vermiferum* from the other European species.

Tubulicrinis calothrix (Pat.) Donk (Donk 1956: 14) (Figure 4)

Materials examined: ITALY. Sicily. Trapani, Pantelleria, Contrada Khaggiar, 25 September 2010, 36°48′45.176″ N, 011°59′59.032″ E, on fallen branch of *Q. ilex*, MCVE 28628; ITALY. Sicily. Palermo, Monte Pellegrino, 7 February 2014, 38°09′28.147″ N, 013°21′43.097″ E, on fallen branch of *P. halepensis*, MCVE 28605; ITALY. Sicily. Trapani, Monte Pispisa, 12 April 2014, 37°56′41.974″ N, 012°49′29.512″ E, on fallen branch of *P. halepensis*, MCVE 28620; ITALY. Sicily. Palermo, Cannitello, 15 January 2014, 37°53′18.614″ N 013°24′30.956″ E, on fallen branch of *E. camaldulensis*, MCVE 28604; ITALY. Sicily. Palermo, Galleria Roccazzo, 4 April 2014, 37°53′20.321″ N 013°24′45.170″ E, on fallen trunk of *P. pinea*, MCVE 28617.

Remarks: This is a common species easily determined by its asymetrically thick-walled cystidia.

Tubulicrinis medius (Bourdot & Galzin) Oberw. (Oberwinkler 1966: 26)

Material examined: ITALY. Sicily. Trapani, Pantelleria, Contrada Khaggiar, 25 September 2010, 36°48′45.176″ N, 011°59′59.032″ E, on fallen branch of *Q. ilex*, MCVE 28583.

Remarks: The cystidia, with a slight median constriction toward the obtuse apical region, are the most characteristic feature of this species which is uncommon in Italy, but widely distributed in Europe (Bernicchia and Gorjón 2010).

Tubulicrinis subulatus (Bourdot & Galzin) Donk (Donk 1956: 14)

Materials examined: ITALY. Sicily. Palermo, Galleria Roccazzo, 4 April 2014, 37°53′20.321″ N, 013°24′45.170″ E, on fallen trunk of *P. pinea*, MCVE 28616; ITALY. Sicily. Palermo, Galleria Roccazzo, 4 April 2014, 37°53′22.394″ N, 013°24′39.222″ E, on fallen trunk of *E. camaldulensis*, MCVE 28615.

Remarks: Widely distributed species in Europe, *T. subulatus* is easily distinguished by its subulate cystidia.

Xylodon rimosissimus (Peck) Hjortstam & Ryvarden (Hjortstam and Ryvarden 2009: 39)

Material examined: ITALY. Sicily. Monreale, Monte Petroso, 7 March 2014, 38°05′57.719″ N, 013°15′50.770″ E, on wood of *Q. ilex*, MCVE 28608.

Remarks: This is a rare species in Italy. *Xylodon rimosissimus* can be recognized by its whitish basidiomes, open texture and cystidia with several constrictions (Moreno et al. 1990).

Xylodon spathulatus (Schrad.) Kuntze (Kuntze 1898: 541; Parmasto 1968: 123)

Material examined: ITALY. Sicily. Enna, Contrada Buscemi, 14 April 2011, on fallen trunk of *Q. suber*, MCVE 28588.

Remarks: This is a very rare species in Italy (Bernicchia and Gorjón 2010), *X. spathulatus* is macro- and microscopically sometimes difficult to determine. The presence of two kinds of cystidia, slightly acute with obtuse apex sometimes slightly sinuous and constricted, serve to identify this taxon.

This list of new records for 25 species of corticoids from Sicily adds new information on the distribution and ecology of this group of fungi in Italy and Europe. The findings of rare and uncommon species provide useful information for future conservation actions. There is still more to be learned about the diversity on corticioid fungi in the Mediterranean region and the role of corticoid fungi in this ecosystem.

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APPENDIX

List of Sicilian corticioid fungi:

Aleurodiscus disciformis (DC.) Pat.
Amphynema byssoides (Pers.) J.Erikss.
Amylocorticiellum subillaqueatum (Litsch.) Spirin & Zmitr.
Amylostereum chailletii (Pers.) Boidin
Asterostroma cervicolor (Berk. & M.A. Curtis) Massee
Asterostroma gaillardii Pat.
Athelia acrospora Jülich
Australohydnum dregeanum (Berk.) Hjortstam & Ryvarden

Basidioradulum crustosum (Pers.) Zmitr., Malysheva & Spirin
Botryobasidium laeve (J. Erikss.) Parmasto
Botryobasidium pruinatum (Bres.) J. Erikss.
Botryohypochnus isabellinus (Fr.) J. Erikss.
Brevicellicium olivascens (Bres.) K.H. Larss. & Hjortstam
Byssocorticium atrovirens (Fr.) Bondartsev & Singer
Byssomerulius corium (Pers.) Parmasto
Byssomerulius hirtellus (Burt) Parmasto
Chondrostereum purpureum (Pers.) Pouzar
Coniophora arida (Fr.) P. Karst.
Coniophora fusispora (Cooke & Ellis) Cooke
Coniophora olivacea (Fr.) P. Karst.
Coniophora puteana (Schumach.) P. Karst.
Cristinia helvetica (Pers.) Parmasto
Crustomyces subabruptus (Bourdot & Galzin) Jülich
Cylindrobasidium evolvens (Fr.) Jülich
Dacryobolus sudans (Alb. & Schwein.) Fr.
Fibrodontia gossypina Parmasto
Gloeocystidiellum luridum (Bres.) Boidin
Gloeocystidiellum porosum (Berk. & M.A. Curtis) Donk
Gloeodontia columbiensis Burt ex Burds. & Lombard
Gloiothele citrina (Pers.) Ginns & G.W. Freeman
Hydnocristella himantia (Schwein.) R.H. Petersen
Hymenochaete corrugata (Fr.) Lév.
Hymenochaete rubiginosa (Dicks.) Lév.
Hyphoderma etruriae Bernicchia
Hyphoderma setigerum (Fr.) Donk
Hyphodermella corrugata (Fr.) J. Erikss. & Ryvarden
Hyphodontia alutaria (Burt) J. Erikss.
Hyphodontia arguta (Fr.) J. Erikss.
Hyphodontia pallidula (Bres.) J. Erkss.
Hyphodontia subalutacea (P. Karst.) J. Erikss.
Kurtia argillacea (Bres.) Karasinski
Leptocorticium gloeocystidiatum Gorjón & Saitta
Leucogyrophana romellii Ginns
Lindtneria chordulata (D.P. Rogers) Hjortstam
Mucronella calva (Alb. Schw.) Fr.
Mycoacia aurea (Fr.) J. Erikss. & Ryvarden
Mycoacia fuscoatra (Fr.) Donk
Mycoacia nothofagi (G. Cunn.) Ryvarden
Mycoacia uda (Fr.) Donk
Odonticium flavicans (Bres.) Nakasone
Peniophora cinerea (Pers.) Cooke
Peniophora incarnata (Pers.) P. Karst.
Peniophora lycii (Pers.) Hohn. & Litsch.
Peniophora meridionalis Boidin
Peniophora quercina (Pers.) Cooke
Peniophorella praetermissa (P. Karst.) K.H. Larss.
Peniophorella pubera (Fr.) P. Karst.
Phanerochaete galactites (Bourdot & Galzin) J. Erikss. & Ryvarden
Phanerochaete laevis (Fr.) J. Erikss. & Ryvarden
Phanerochaete martelliana (Bres.) J. Erikss. & Ryvarden
Phanerochaete sordida (P. Karst.) J. Erikss. & Ryvarden
Phanerochaete tuberculata (P. Karst.) Parmasto
Phanerochaete velutina (DC.) P. Karst.
Phlebia acanthocystis Gilb. & Nakasone
Phlebia georgica Parmasto
Phlebia radiata Fr.
Phlebia rufa (Pers.) M.P. Christ.
Phlebia tremellosa (Schrad.) Nakasone & Burds.
Phlebiopsis gigantea (Fr.) Jülich
Phlebiopsis ravenelii (Cooke) Hjorstam
Porostereum spadiceum (Pers.) Hjortstam & Ryvarden
Pseudochaete tabacina (Sowerby) T. Wagner & M. Fisch.,
Radulomyces confluens (Fr.) M.P. Christ.
Radulomyces molaris (Chaillet ex Fr.) M.P. Christ.
Ramaricium alboochraceum (Bres.) Jülich
Sarcodontia crocea (Schwein.) Kotl.
Scytinostroma hemidichophyticum Pouzar
Serpula lacrymans (Wulfen) J. Schröt.,
Steccherinum fimbriatum (Pers.) J. Erikss.
Steccherinum ochraceum (Pers.) Gray
Steccherinum oreophilum Lindsey & Gilb.
Steccherinum straminellum (Bres.) Melo
Stereum gausapatum (Fr.) Fr.
Stereum hirsutum (Willd.) Pers.
Stereum rugosum Pers.
Stereum sanguinolentum (Alb. & Schwein.) Fr.
Stereum subtomentosum Pouzar
Subulicystidium longisporum (Pat.) Parmasto
Terana coerulea (Lam.) Kuntze
Trechispora cohaerens (Schwein.) Jülich & Stalpers
Trechispora farinacea (Pers.) Liberta
Trechispora fastidiosa (Pers.) Liberta
Trechispora nivea (Pers.) K.H. Larss.
Trechispora stevensonii (Berk. & Broome) K.H. Larss.
Vararia ochroleuca (Bourdot & Galzin) Donk
Vuilleminia comedens (Nees) Maire
Vuilleminia coryli Boidin, Lanq. & Gilles
Vuilleminia megalospora Bres.
Vuilleminia pseudocystidiata Boidin, Lanq. & Gilles
Xenasmatella vaga (Fr.) Stalpers
Xylodon quercinus (Pers.) Gray
Xylodon sambuci (Pers.) Tura, Zmitr., Wasser & Spirin